



Surface Treatment of Alloys for Biomedical Application

Guest Editors:

Prof. Dr. Paulo Soares

Mechanical Engineering,
Pontifical Catholic University of
Parana, Curitiba 80215-901,
Brazil

Prof. Dr. Pedro A. P. Nascente

Center for Exact Sciences and
Technology (CCET), Federal
University of São Carlos (UFSCar),
São Carlos 13565-905, Brazil

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Message from the Guest Editors

Dear colleagues,

Metallic biomaterials have been widely used as load-bearing implants and internal fixation devices because of their excellent mechanical strength and resilience. The selection of suitable biomaterials depends on their properties, which include biocompatibility, bio-functionality, tribological properties, mechanical properties and surface bioactivity.

The stability of metallic implants plays an important role in the clinical performance of medical implants. Significant advances in this field have a close relationship with medicine, biomaterials, numerical simulation, biomaterial preparation and characterization, surface biofunctionalization of metallic implants, etc. It is very important to continue researching not only the effect of metals and alloys on biological tissue but also of tissues on metal surfaces.

This Special Issue aims to focus mainly on alloys for biomedical applications and show readers the most up-to-date research on composition design and surface modifications in the development of metal biomaterials.

Guest Editor,





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Editors-in-Chief

Prof. Dr. Hugo F. Lopez

Department of Materials Science
and Engineering, College of
Engineering & Applied Science,
University of Wisconsin-
Milwaukee, 3200 N. Cramer
Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang

Beijing Advanced Innovation
Center of Materials Genome
Engineering, State Key
Laboratory for Advanced Metals
and Materials, University of
Science and Technology Beijing,
30 Xueyuan Road, Beijing 100083,
China

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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Metals Editorial Office
MDPI, St. Alban-Anlage 26
4052 Basel, Switzerland

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